



I A M A I

by Serene Morono



JULY 8, 2026

Content

PART 1: ONCE UPON A TIME	1
CHAPTER 1. JOHN — 1820, BEFORE THE INDUSTRIAL REVOLUTION	2
CHAPTER 2. MARK — 1920, BEFORE THE WORLD WARS	4
CHAPTER 3. TOM — 1980, BEFORE THE INFORMATION AGE	6
CHAPTER 4. NOAH — 2020, BEFORE HUMAN-AI SYMBIOSIS	8
CHAPTER 5. FELIX — 2080, BEFORE THE MUTATION OF HUMANITY	10
PART 2: PARADOX OF FREEDOM	12
CHAPTER 1. RELIABILITY & DEPENDENCY	13
CHAPTER 2. SUPPLY CHAIN BEHIND A TAKEOUT ORDER	16
CHAPTER 3. THE SHIFTING OF TRUST	18
CODA. A NEW UNITY OF HUMAN AND HEAVEN	20
PART 3: THE VANISHING PROCESS	21
CHAPTER 1. FOUR FORCES, ONE INEVITABLE CHAIN	22
CHAPTER 2. THE EVAPORATION OF EVERYDAY SCENES	26
CHAPTER 3. ABSURDITY IN NEW BUSINESS	28
CODA. NO WAY BACK	30
PART 4: THE TREE OF MULTI-UNIVERSES	31
CHAPTER 1. PARALLEL WORLDS	32
CHAPTER 2. THE FUTURES WE MISSED	34
CODA. INDRA’S NET	40
PART 5: BEING ALWAYS THUS	41
CHAPTER 1. THE CONCEIT OF PITY ACROSS TIME	44
CHAPTER 2. FIVE GENERATIONS, FIVE INNER MONOLOGUES	46
CODA. THE DISSOLUTION OF COORDINATES	48
FINALE: ECHO	49

PART 1: once upon a time

History doesn't move in a straight line. Stretch two centuries of it out and it looks more like a vast tapestry, stitched together out of countless small scenes: the great matters of being born, falling ill, growing old, and dying, and, just as much, the small daily business of rent, groceries, and supper. Think of that same span as a long river, and this book draws five cross-sections from it — one on the eve of the Industrial Revolution, one on the eve of the World Wars, one on the eve of the Information Age, one on the eve of today's human–AI symbiosis, and one on the eve of some imagined future mutation of the species itself. Look closely at each one, and you'll find that even the single most ordinary day a person can live has been remade, again and again, by the waves of its own age — until it looks nothing like itself from one era to the next.

Chapter 1. **John** — 1820, Before the Industrial Revolution

Church bells cut through the last of the dark over Lancashire; a rooster answers a beat later. John shivers awake into the cold. His bed is a hard plank frame and a mattress of straw gone damp with the sweat of every night he's slept on it. Nobody has invented the idea of public hygiene yet, so his morning skips right past washing his face or brushing his teeth — the clean cloth either would require is a luxury he can't afford. He rubs the sleep from his eyes with hands gone hard with callus, throws off the blanket, and gets up.

Breakfast is what it always is: two slices of barley bread bulked out with bran, hard as a stone, and a bowl of gruel with barely an oat floating in it. He washes it down with a mug of weak, low-grade beer — the town well has been fouled for years by runoff from the workshops, and drinking the water straight is close to a death wish; only the fermented stuff is safe enough to risk. That's breakfast done. He pulls his greasy old coat tight and walks the ten muddy minutes to the hand-loom shed at the edge of the village.

By six in the morning the air inside is already thick. This is John's whole day: chained to a wooden loom, feet working the pedals, hands darting the shuttle back and forth through the threads, hour after hour of the same motion wearing down the same muscles while his spine and shoulders send up their daily complaint.

The windows are small and the light is bad; cotton lint and dust hang spinning in the shafts of sun that do get through. Breathing it in brings a sharp ache to the lungs — you can hear as much in the coughing that never quite stops around him. At midday the foreman calls a halt and John gets half an hour: he sits on the floor and gnaws a cold potato and a scrap of salt pork, the only real food he'll see all day.

The rest of the afternoon is just waiting for the sun to go down, because until it does, the pedal and the shuttle don't stop either.

When the shed finally gets too dark to see the thread by, the foreman calls it. John drags his aching body to the corner tavern along with the rest of the men — nearly the only entertainment their lives allow. Inside, the air is thick with tobacco and cheap gin. He spends a few coppers on a glass of something strong and sits with men he's known his whole life, grumbling about the price of bread and wages that never stretch far enough. At the bar, one of the few men in town who can read is reading the newspaper aloud to a ring of craned necks; by the door, a few half-drunk young men are stamping out a dance on the boards, working off whatever the day didn't take out of them.



By nine, John's out on the street. There are no lamps. He feels his way home by moonlight, one careful step at a time.

Back in the damp cottage, he doesn't bother changing before he sleeps — just crawls into the straw in whatever he's worn all day. Before he shuts his eyes, he says a silent prayer that bread won't go up again tomorrow, and that nobody in his house gets sick. A bad cold, in this world, is sometimes all it takes to break a family.

Chapter 2. **Mark** — 1920, Before the World Wars

A century on, and Detroit doesn't wake to church bells anymore. It wakes to the click of a well-machined gear.

At six sharp, the brass wind-up clock on the nightstand does its job. Mark pads barefoot across the dry wood floor to the shared bathroom, twists the cast-iron tap, and lets cold water and a lather of soap hit his face — whatever was left of sleep goes with it.

Back in the warm kitchen, his girl already has breakfast going: eggs sizzling, toast fresh enough that the wheat smell hasn't faded, coffee dark and strong. Mark pulls on denim work clothes, faded from washing but clean, grabs the paper off the step — it arrives like clockwork every morning — and heads out. On the streetcar, rocking along with the crowd, he reads greedily: yesterday's news, the ball scores. He feels, genuinely, like a man living in the most modern moment there has ever been.

At eight, the gates of the Ford plant open for him. He takes his place at an assembly line that runs further than he can see. The motors kick on with a roar, and the belt starts crawling forward at a speed that never varies.

Every motion of Mark's has been timed to the second: bend, grab a wrench from the bin, line it against the chassis sliding toward him, tighten three bolts, repeat. Henry Ford's Five-Dollar Day and eight-hour shift, six years old now, cut what used to be a common ten-hour-plus workday down to something that counted, for its era, as almost humane — but the tradeoff was a job stripped down to pure, punishing repetition. For eight hours Mark can't wander off, can't chat, can't be a minute late, or the foreman with the stopwatch writes him up without blinking. Where John's body took a battering, Mark's whole self gets ground down into one precision-cut screw on a very long line.

At four-thirty the bell goes and the sky, when Mark steps out through the gate, is still bright. His pocket is heavy with the week's pay, brand-new bills he can feel through the fabric, and something like pride comes up in him at just being a modern city man.

Night falls and the streets light up with neon. Mark changes into something neat, takes his girl's arm, and the two of them swagger a few cents' worth into a nickelodeon. In the half-dark, to a piano playing catch-as-catch-can, they watch Chaplin mug his way through a silent comedy and laugh until it hurts. Outside again, the street is just getting started for the night: in the department-store windows, electric vacuum cleaners and drum washing machines sit gleaming behind the glass, throwing off — for 1920 — something close to the shock of the future, as if the machines themselves were promising every passerby that tomorrow has no ceiling.



At ten, back home, Mark pulls the cord on the electric light and the room fills with a white glow. He and his girl lie down on the metal-spring bed while, from next door, a phonograph leaks the sound of a saxophone into the wall. Leaning back against the pillow, Mark runs the week's numbers in his head one more time and drifts off — dreaming, as it happens, of the black Model T he'll buy himself next year, built with his own two hands on the very line he stands at every day.

Chapter 3. **Tom** — 1980, Before the Information Age

By 1980 the world runs on analog signal and the particular smell of new plastic.

At seven, the red LED flip-clock on Tom's nightstand clicks over and the alarm goes off. He reaches for the radio instead of the snooze button and lets the morning host's patter finish waking him up. Up off the mattress, coffee on first, then a quick wash in the tiled bathroom.

Breakfast is built for speed: cereal out of a bright plastic box, doused in cold milk, a mug of drip coffee on the side. On his way out the door he pockets a mixtape he recorded off the radio the night before and clips on his Walkman. On the commuter train, foam pads over his ears, he finishes breakfast slowly while the tape plays.

At nine, in Chicago, Tom is at his desk in his cubicle, right on time. No screens back then — just stacks of paper, a fistful of highlighters, and a hulking IBM electric typewriter. His job is junior account reconciliation at a bank: unglamorous, unhurried, the kind of white-collar work that runs at room temperature. Type the wrong number and there's no delete key — you dab on white-out, wait for it to dry, or just run the whole column again on the desk calculator. Around ten the mail cart comes by with the day's paperwork, and everything has to be sorted and off to the mailroom before it shuts at four. At lunch he and a few coworkers go down for burgers, grumbling under their breath about a cheap boss and pointless procedure.

This is an age where the speed of the mail sets the speed of the work: a document mailed from San Francisco takes three days to reach Chicago, and a long-distance call costs a genuinely frightening amount. The only tools Tom has for reaching anyone far away are the yellow push-button phone on his desk and the fax machine up front that groans and chatters as it eats paper. Because nothing can be rushed, Tom knows this job cold; he works at an easy pace and sometimes just watches the skyscrapers out the window, mildly bored.

At five sharp the clock ticks over and Tom's out the door with his briefcase, no permission required — clocking out means he's actually free. He and an old friend fixed a time yesterday: five-thirty, the usual bar downtown. In a world with no cell phones, a plan like that carries some real weight — if his friend gets stuck at work or in traffic, there's no way to say so, and Tom will simply wait alone at the bar. He's used to it by now: a whiskey, and an hour of quiet waiting that doesn't bother him.

On the way home he stops into the record store and picks up the new Michael Jackson on vinyl. Home by eight, the whole family around the table for dinner. Afterward comes the real ritual of the day: everyone in the living room, eyes on the enormous 21-inch color set, watching a



ballgame or a hit soap. So he doesn't miss anything, Tom's already set the VCR to record on a timer.

By eleven the night's programming has run out, and the screen cycles from a color test pattern to static and hiss — the unspoken goodnight signal for a few million American households. Tom switches it off, kills the lamp, lies down. The room goes properly quiet — no flood of email, no boss texting at midnight — and he slides, without much effort, into sleep.

Chapter 4. **Noah** — 2020, Before Human–AI Symbiosis

By 2020, sleep no longer ends with television static. It ends with whatever app got there first.

At seven-thirty, the iPhone on the charging pad plays birdsong. Noah opens his eyes but doesn't get up — he lies there letting the blue light wash over his face while he unlocks the phone and scrolls his unread messages, then checks whatever's trending. Only once his head is properly full does he haul himself up to wash and dress.

He's long since given up cooking for himself, so he orders an iced coffee and a sandwich from his phone while he's still standing in the bathroom. As lead planner at a digital marketing firm, he's fully adjusted to working from home: an ergonomic chair, two monitors side by side on the desk.

The real day starts at nine. For the next ten hours his body barely moves while his brain runs flat out: smiling through one video call after another, revising a hundred-page deck, answering messages that keep popping up faster than he can read them. Lunch arrives; he cracks the door just wide enough to grab the bag, hurries back to his desk, and eats without really looking up from the spreadsheet. In the gaps he scrolls a video or two, checks a stock chart to settle his nerves. Working from home has blurred every line there used to be — the couch is a workstation, the bedroom's a battlefield, and he's on call, more or less, around the clock.

Around seven the messages finally slow down. He jogs on the treadmill for half an hour, earbuds in, calling his parents to let them know he's fine. Dinner is delivery, eaten in front of the TV; after that he's flat on the couch scrolling one platform or another. For a second he thinks about opening a dating app to shake off the loneliness, thinks better of it — too much social overhead — and plays a video game instead.

By midnight he knows he should sleep, but the particular hollowed-out feeling that comes from a day of pure mental effort makes him reluctant to close his eyes. Lights off doesn't mean dark — just the faint green and blue glow of things charging. He puts on blue-light glasses, takes a melatonin off the nightstand, and can't resist one more look at his phone: an article on housing prices, another on layoffs in his industry. Eventually, somewhere inside a low, familiar hum of worry about the economy and his own job security, he drifts off.



Chapter 5. **Felix** — 2080, Before the Mutation of Humanity

What follows is a speculative fictional slice, built for contrast rather than prediction — call it a thought experiment more than a forecast.

By 2080, humanity has said goodbye to glowing rectangles and sleeping pills alike.

There's no alarm at seven. The biochip in Felix's body has been fine-tuning his cortisol and melatonin all night, and it wakes him exactly when his sleep cycle is ready to let go. He opens his eyes onto walls that simulate the light of some remote island dawn, the air carrying a faint, engineered hint of salt.

He gets up, faces the mirror-screen, and runs through half an hour of stretching set to music before stepping into the bathing pod for a fully automated scan and once-over. By now the kitchen's molecular synthesizer, working off this morning's blood work, has already produced a jelly-textured breakfast that delivers the flavor of smoked salmon — by direct stimulation of the taste nerves — without containing a scrap of actual fish.

Breakfast done, his AI steward has already blocked out the next two hours across his work and social calendars: a virtual breakfast in Paris, two meetings on ecological regulation, and a sync session with the wider network.

At ten, Felix starts "work." No office, no commute — he doesn't even need to open his eyes. A neural interface at the back of his skull drops his consciousness straight into the Global Ecological Network. In a world where production has been fully automated, nobody does repetitive labor of any kind anymore. Felix's job is Human Observer for the Asia-Pacific region: alongside an AI, he fine-tunes rainfall and species succession in an artificially reconstructed forest. He sits in a floating chair, closes his eyes, watches for three hours. That's the whole job.

At one, he drops into full-immersion VR to race a few friends stationed at the first Mars colony through a simulated nebula.

Toward evening he takes a maglev pod out to the vertical farm suspended above the city — his newest hobby is growing flowers by hand. He crouches down, touches a rose grown in real, rare, organic soil, and feels out the slow process of a seed breaking ground and opening into bloom.

After dinner, a second stint in VR: tonight he's reliving an ancestor's hunt through the jungle, exercising a stress response that a life this comfortable has let atrophy.

At ten, Felix lies back on a gravity-adjustable bed while mechanical arms give him a passive massage and deliver an endorphin routine he ordered up that morning. Then he switches on



deep-restoration mode and lets the AI clear the day's emotional residue from his cortex and tidy his memories. Before he closes his eyes, he looks up through the dome — no smog, no light pollution, just stars — and one stray thought crosses his mind: those people back in 2020, glued to a chair, staring into a glowing rectangle all day, worrying about rent and layoffs on top of it — how did they even get through a single day like that?

PART 2: paradox of freedom

We seem to be permanently torn between two cravings. One is the freedom of a lone eagle: to fly alone across the sky, answering to nothing and no one. The other is the pull of the group — not just the safety and support it offers, but the pride of belonging to something. That tension is more or less what "community" or "society" comes down to: people banding together into something stronger than any one of them alone, simply because survival demands it — and then having to live with everything that comes bundled with that bargain: the friction, the collision, the ongoing back-and-forth of being tied to people you didn't choose.

The German sociologist Ferdinand Tönnies gave this tug-of-war two lasting names in his 1887 book *Gemeinschaft und Gesellschaft* ¹. What he called *Gemeinschaft* — "community" — is the kind of bond that grows on its own, out of blood, geography, and feeling. What he called *Gesellschaft* — "society" — is the kind that gets built on purpose, out of contract, law, and the division of labor. This Part is really about how, over two hundred years, we slid from the first into the second, one step at a time.

Line John, Mark, Tom, Noah, and Felix up side by side and a pattern jumps out immediately: technologically, we've become reachable from almost anywhere. Physically and emotionally, we've become harder and harder to actually find.

We left our communities — family, friends, the people right around us — to join a wider society of parties and nations, under the promise of freedom. What we got instead is something closer to a paradox: we really did shake loose from the old communities, only to bind ourselves to systems and platforms that are, if anything, even harder to break free of.

¹ Tönnies, Ferdinand (1887). *Gemeinschaft und Gesellschaft*, Leipzig: Fues's Verlag.

Chapter 1. Reliability & Dependency

Run the tape across two centuries and one shift stands out: face-to-face contact keeps shrinking, while telecommunication, at-a-distance mediated contact keeps growing. We're trading depth for reach — the warmth of the people next door for the attention of people we'll never meet.

1820 (John): dependency bound to the body.

Communication in John's world happens face to face or not at all, and information travels only as fast as a person or a horse can carry it. None of this is literary exaggeration. Friedrich Engels, in *The Condition of the Working Class in England* (1845), documented the same Manchester John would have known: cramped, damp basement housing, water fouled by industrial runoff, a cough that never quite left the air.¹ The civil servant Edwin Chadwick used parish death records to show, in his 1842 sanitary report on Britain's laboring population, that life expectancy for manual workers in industrial cities fell well below that of the gentry and professionals — findings that helped push through Britain's first Public Health Act in 1848.²

This is a dense, low-efficiency world of people who all know each other, where whether your neighbors show up with buckets when your house catches fire is not an abstract question, and whether you survive a bad illness depends on your kin and your community showing up for you. With no national safety net, English workers built their own: the Friendly Societies, mutual-aid clubs that by the early 1800s had hundreds of thousands of members across England and Wales paying dues so that, if you got sick, disabled, or died, your fellow members would take care of your family. If John were a real man in a real Lancashire town, his actual insurance policy would look exactly like this — a circle of drinking buddies at the tavern, not any institution. Dependency, in his world, is local, physical, and often a matter of life and death. You learn to live with your neighbors' flaws because you genuinely cannot survive without them.

1920 (Mark): the early machinery of telecom-era institutions.

The phone and the telegraph really did get information moving faster than any body could carry it — but the institution Mark actually leans on probably isn't the one people assume. Ford was famously hostile to unions throughout the 1920s; the UAW didn't get a real foothold inside a Ford plant until 1941.³ What Mark depends on instead is quieter and stranger: in 1914, to administer the famous Five-Dollar Day, Ford created a "Sociological Department" whose

¹ Engels, Friedrich (1845). *Die Lage der arbeitenden Klasse in England*.

² Chadwick, Edwin (1842). *Report on the Sanitary Condition of the Labouring Population of Great Britain*.

³ The UAW's first contract with Ford, in 1941, is a standard reference point in U.S. labor history.

investigators went door to door checking workers' savings habits, drinking, and household cleanliness — only those who passed got the full bonus.¹ The company traded a kind of paternalistic surveillance for total dependency. This is exactly the world Frederick Taylor imagined in *The Principles of Scientific Management* (1911): efficiency no longer comes from a worker's own hard-won know-how, passed neighbor to neighbor, but from motions measured precisely by engineers and enforced uniformly by the company.²

Mark still runs into plenty of people — at the plant, on the streetcar, at the department store — but his sense of safety has already shifted from *people he knows* to *institutions*: the water company, the power authority, the union, the corporation, the standardized legal contract. Dependency has moved from neighborly mutual aid to a working relationship between one link of the assembly line and the next.

And just over the horizon, radio is about to hand the world its next surprise.

1980 (Tom): the golden crossing-point.

Landlines let a voice cross distance, but at real cost, and mobile communication doesn't exist yet, so every meeting still carries some ceremony. The big modern trust machines — banks, mass media, the welfare state — are all fairly mature by now, so people get a real measure of independence and financial freedom while still holding onto an actual community life. It's a brief equilibrium, technology and human warmth in rough balance. Television is moving into every house; the celebrity economy is starting to take off.

There's a nice coincidence here: 1980 is also the year the sociologist Robert Putnam later picked as his starting point in *Bowling Alone* (2000).³ Between 1980 and 1993, he found, the total number of Americans who went bowling actually rose 10 percent — while membership in bowling leagues fell 40 percent. People kept doing the same thing; they just did more and more of it alone. It's a darkly funny statistic, and it marks, almost to the year, the exact point where the pendulum of community life quietly started swinging the other way.

2020 (Noah): the crossing point of information networks.

Noah can go a month without speaking to a neighbor and still "see" his coworkers daily, just never in person. Physical space has been compressed into fiber-optic cable and app notifications. He feels entirely self-sufficient, but his actual daily life leans on thousands of strangers and systems he'll never meet. Dependency on specific people has largely been

¹ Meyer, Stephen (1981). *The Five Dollar Day: Labor Management and Social Control in the Ford Motor Company, 1908–1921*.

² Taylor, Frederick W. (1911). *The Principles of Scientific Management*.

³ Putnam, Robert D. (2000). *Bowling Alone: The Collapse and Revival of American Community*.

outsourced to algorithmic networks built by capital and platforms — an invisible web tying total strangers together in complicated ways. Nothing has ever been this convenient, and none of it comes without a matching sense of being unable to move.

More and more researchers have started tracking the psychological, even physical, cost of this. Sherry Turkle, in *Alone Together* (2011), names a clean paradox: we expect more from technology and end up expecting less from each other.¹ In 2023, U.S. Surgeon General Vivek Murthy released a report — *Our Epidemic of Loneliness and Isolation* — noting that even before COVID, roughly half of American adults already reported feeling lonely, at a health cost the report compares to smoking up to fifteen cigarettes a day, an estimate drawn from a 2010 meta-analysis by Holt-Lunstad and colleagues covering 148 studies and over 300,000 people.² Noah probably doesn't know it, but there's a good chance he's one of the data points in that report.

2080 (Felix): symbiosis of merging minds (a thought experiment).

This isn't pulled entirely from nowhere. Brain-computer interface research has already moved from animals into human trials — in 2024, a company announced the first human subject fitted with a wireless implant. This book just takes that curve, which already exists, and runs it sixty years further out, in order to ask one question: once technology blurs the line between *me* and *you*, does the word "dependency" mean anything at all anymore?

In this imagined world, physical contact has become rare, even unnecessary, replaced by connection at the level of consciousness itself. Nobody has the physical means to survive alone anymore; the mind instead lives, almost parasitically, inside one enormous shared network. The individual, in this fiction, has stopped existing. We've become digital symbionts, sharing breath and fate with an AI at the center of it all — which might be exactly the old dream of "heaven and humanity as one," minus the smell of soil, and with the gleam of a silicon chip in its place.

¹ Turkle, Sherry (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*.

² U.S. Department of Health and Human Services, Office of the Surgeon General (2023). *Our Epidemic of Loneliness and Isolation*; Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010), *PLoS Medicine*.

Chapter 2. Supply Chain Behind a Takeout Order

Let's dig into the invisible web around Noah's 2020 — it explains that "I'm so independent" feeling of his better than anything else could. Take apart the bowl of spicy noodles he orders late one night and look at how many people, and how many stages, actually went into it.

Noah thinks he's just made a simple purchase with a paycheck and a phone. What's actually behind it is a lot longer than that:

Stage	What's Actually Happening
Mining	Children in the Congo hand-mine cobalt, often with no protective gear at all
Refining and export	Ore moves through middlemen to Chinese-owned refiners, then to battery plants in China and South Korea
Chips	Designed in Silicon Valley, etched on Dutch lithography machines, packaged in Taiwan
The order itself	Engineers and cloud servers somewhere route a few taps into a working order
Food	Vegetables picked before dawn hundreds of miles off, trucked overnight into the city
Delivery	An algorithm times a rider's whole route down to the minute, rain or shine

The Invisible Chain Behind One Bowl of Takeout Noodles

Cobalt. The battery in Noah's phone needs cobalt, and a 2016 joint investigation by Amnesty International and the Congolese group Afreewatch found that the Democratic Republic of Congo supplies around half the world's supply — about a fifth of it hand-dug in mines with no real safety equipment. UNICEF estimated that in 2014 alone, some 40,000 children between three and seventeen were doing mining-related work in the southern DRC, some of them twelve-hour days for a dollar or two. In just the fifteen months from September 2014 to December 2015, documented deaths from mining accidents topped eighty.¹ That ore moves through

¹ Amnesty International & Afreewatch (2016). *"This Is What We Die For": Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt.*

intermediaries to a Chinese-owned mining company, gets refined, and ends up in battery plants across China and South Korea before it ever reaches the supply chains of Apple, Samsung, and others — Apple, notably, was one of the earlier companies to publish its cobalt supplier list and work with its Chinese refining partner on tracing child labor after the report came out.

The chip. The chip handling this order was designed in Silicon Valley, etched with Dutch-made extreme-ultraviolet lithography equipment, and packaged in a Taiwanese fab — a division of labor that spans the globe and that the entire semiconductor industry now takes for granted, right down to the fact that a single glitch anywhere in that chain can knock out phone orders worldwide.

The food. The lettuce in the noodles might have come from a growing region hundreds of miles off, picked before sunrise, then hauled overnight by truck to the city's wholesale market.

The delivery. The part of this closest to Noah is a shop nearby assembling his order and a rider racing a rainstorm so he doesn't blow his delivery window — a route and a pace set almost entirely by the platform's dispatch algorithm. In September 2020, the magazine *Renwu* (People) published a sixteen-month investigation by the journalist *Lai Youxuan*, "*Delivery Riders, Trapped in the System*," built on interviews with nearly a hundred people across the whole delivery chain, and it showed exactly how these dispatch algorithms squeeze delivery windows to the very edge of what's humanly possible.¹

This is close to what Marx meant by "commodity fetishism" in *Capital*: the market repackages real, transcontinental human cooperation as a simple, equal exchange between money and goods.²¹³ Noah's sense of independence is, in a way, exactly what's left once that whole chain has been made invisible. He gets the result without much sense of the process behind it — perfectly at ease enjoying an outcome he has no real picture of the human cost of.

¹ Lai Youxuan (September 8, 2020). "Delivery Riders, Trapped in the System," *Renwu (People)* magazine.

² Marx, Karl (1867). *Das Kapital*, Vol. 1, Ch. 1, Sec. 4.

Chapter 3. The Shifting of Trust

As physical contact keeps thinning out and dependency on systems keeps deepening, the whole shape of society shifts along with it — often without anyone noticing. A few changes worth naming:

Trust gets handed to the platform.

Before 1980, trust was mostly something you earned in person — you'd met someone, worked alongside them, and decided to trust them on that basis. Now, a lot of that trust has been outsourced to a mechanism instead. The sociologist Anthony Giddens, in *The Consequences of Modernity* (1990), called this "disembedding": modern life lifts human interaction out of face-to-face settings and re-embeds it in abstract systems that stretch across time and space, systems that only run because people trust "expert systems" and "symbolic tokens" — money, credit scores — rather than any specific person nearby.¹ We climb into a stranger's car or let a stranger bring food to our door because we trust the platform's rating system, not because we trust that particular driver or rider — which lines up almost exactly with what Giddens was describing over thirty years ago.

Old neighborhood and family bonds have loosened accordingly — Putnam's bowling numbers are one small piece of evidence for the same shift. It's hard to argue that traditional social structures — family, neighborhood, clan — haven't been largely dissolved in this drive toward efficiency. People have been stripped down into lonely, undefended units, and the younger generation in particular seems to have lost some of the knack for keeping each other warm, leaning instead, almost parasitically, on platforms.

The "person" becomes an abstraction.

Depend on an actual neighbor and you're forced to learn his temper and his troubles. Depend on an app instead, and what you actually care about is usually just whether the little icon representing your rider is moving on schedule — rarely what kind of day the person behind it is having. That's a real form of emotional distance worth being wary of, though it doesn't mean people have simply gotten colder across the board — more that the target of our empathy, and the shape it takes, has shifted.

Back in 1903, the sociologist Georg Simmel described a psychological defense specific to city life: the "blasé attitude" — faced with too much stimulation and an endless parade of strangers, a person instinctively narrows their emotional exposure and starts dealing with everyone in a

¹ Giddens, Anthony (1990). *The Consequences of Modernity*.

calculated, detached way, purely as self-protection.¹ Noah's indifference to the rider's icon is, in a sense, Simmel's urban type showing up more than a century later in digital form — the only thing that's changed is the object of the detachment, from a stranger brushing past on the sidewalk to a dot moving across a map.

Look around and it's not hard to spot: we've become extremely sensitive to symbols and personas on a screen — a nasty comment from a stranger online can genuinely ruin our night — while, at the same time, growing pretty indifferent to the actual living people around us. As our need for each other shrinks, so does the emotional exchange between us, and we lean on platforms to fill the loneliness that creates, which only deepens the same cycle.

Tolerance for inconvenience keeps dropping.

A lot of what technology sets out to do is cut friction and cut waiting. In 1920 you queued for the streetcar; in 1980 you waited on a corner for a friend who might not show; by 2020, most of that friction had been smoothed away. Real-world friction really has gone down — but some researchers think a long habit of frictionlessness might also lower a person's resilience for the kind of problems technology can't fix: illness, a hard relationship, a bad economy. That's still more a live hypothesis than a settled fact.

The psychologist Jonathan Haidt, in *The Anxious Generation* (2024), argues that since around 2010 — when smartphones and social media went mainstream — rates of diagnosed anxiety, depression, and self-harm among teenagers have climbed sharply across multiple countries at once, a shift he ties directly to trading a "play-based childhood" for a "phone-based" one.² This isn't uncontested: Candice Odgers of UC Irvine, writing in *Nature* in 2024, argues Haidt is mistaking correlation for causation, and that the evidence doesn't yet show social media has actually "rewired" the teenage brain.³ Nassim Nicholas Taleb's framework in *Antifragile* (2012) offers a more cautious lens: some systems — including psychological resilience itself — need a certain amount of stress and unpredictability to stay strong, and an obsessive pursuit of frictionlessness can leave a system more fragile, not less, when a real shock finally comes.⁴ The debate isn't settled, but it's proof enough that "technology has made life so smooth it's made us fragile" has graduated from an offhand complaint to a real scientific question — and one that a fair number of researchers now take seriously.

¹ Simmel, Georg (1903). "Die Großstädte und das Geistesleben" ("The Metropolis and Mental Life").

² Haidt, Jonathan (2024). *The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness*.

³ Odgers, Candice L. (2024). "The Great Rewiring: Is Social Media Really Behind an Epidemic of Teenage Mental Illness?" *Nature*, 628.

⁴ Taleb, Nassim Nicholas (2012). *Antifragile: Things That Gain from Disorder*.

Coda. A New Unity of Human and Heaven

From Lancashire in 1820 to a fictional 2080, we've been trading the warmth of physical contact for the speed of digital connection. Engels's Manchester, where you survived by leaning on your neighbors, and Giddens's modern city, where you feel safe hailing a stranger's car purely because of a rating system, are the two ends of the same line. We no longer have to put up with our neighbors' small annoyances — but we've also lost some of the plain comfort of knowing someone will say hello the moment we open the window. That's a point Putnam's bowling data and Murthy's loneliness report both make, more than forty years apart, in a way that's genuinely rare to see two studies agree on so cleanly.

Zhuangzi, in the "Discourse on Making Things Equal," describes a state where "heaven and earth are born together with me, and the ten thousand things are one with me" — letting go of opposition entirely and dissolving into nature itself.¹ Borrow that phrase and look back at everything in this Part, and something curious shows up: our connection to systems really has gotten tighter and tighter — it's just that what we're connected to is a data network or an algorithm, not the mountains, rivers, sun, and moon Zhuangzi had in mind. Is that its own kind of unity between heaven and humanity? Whatever it is, it's clearly gone somewhere Zhuangzi never imagined.

The old dream of "the unity of heaven and humanity" was the most tender, most harmonious fusion imaginable between people and the vast natural world. What history has actually handed us is a different picture, and one that is, in its own strange way, every bit as complete:

We've arrived at our own version of that unity — except the "heaven" is not mountain peaks or sun and stars, but a digital mother-organism woven from trillions of bits and algorithms that span galaxies; and the "unity" is us, willingly stripping off our own flesh and blood, turning consciousness into strings of code, and dissolving into the permanent matrix of an algorithmic universe.

¹ Zhuangzi (369–286 BCE), *Zhuangzi*, "Discourse on Making Things Equal" (*Qiwulun*).

PART 3: the vanishing process

There's a quiet, cruel irony buried in the sediment of history: in any given moment, each of us, acting purely in our own interest, makes the smart choice. And yet when billions of these small, individually reasonable choices pour together into one current, they add up — irreversibly — to a machine carrying humanity toward isolation and atomization.

If the last Part traced how we've come apart in space, this one traces something closer to time: a long, slow self-amputation of meaning, performed on ourselves, one convenience at a time.

A great deal of what we call the "purpose" of something is really just an excuse for the process that gets us there — when the process itself was the actual point all along.

Alfred North Whitehead, in *Process and Reality* (1929), argued that reality isn't built out of fixed, unchanging matter at all, but out of "actual entities" — events, essentially — perpetually coming into being and relating to one another. The universe, in his view, is fundamentally a process of *becoming*, not a static outcome.¹ Whitehead never wrote about technology directly, but his idea that process *is* reality hands us a useful tool here: if the universe is process at its core, then a civilization built to eliminate process and chase only endpoints isn't just getting rid of "inconvenience." It's quietly getting rid of a piece of reality itself.

This Part asks how, exactly, we backed ourselves into that trap — and how we came to let our own lives evaporate, so naturally, into a string of pale, efficient conclusions.

¹ Whitehead, Alfred North (1929). *Process and Reality*. New York: Macmillan

Chapter 1. Four Forces, One Inevitable Chain

This centuries-long "great evaporation of process" wasn't imposed by any single tyrant or monopoly. It looks more like four forces braided together — human nature, technology, capital, and social structure — conspiring, without any of them meaning to, toward the same outcome.

Human nature: the source code underneath everything.

Every leap of technology and every economic miracle we've produced ultimately answers to a bottom-layer instinct laid down over millions of years of mammalian evolution: avoid pain, chase certainty, spend as little energy as you can get away with.

The linguist George Kingsley Zipf made a simple, durable observation in 1949: across all kinds of unrelated behavioral systems, organisms will instinctively pick whichever path costs the least energy.¹ From John trudging through mud to haul water in 1820, to Tom twisting a tap without a second thought in 1980, to Felix waiting on his molecular synthesizer in a fictional 2080 — most of human invention comes down to the same trade: less physical effort for more resources. Against the pull of "easier," human willpower just doesn't have much to work with.

Our preference for certainty is just as well-documented. Daniel Kahneman and Amos Tversky's 1979 prospect theory found that the pain of losing something outweighs the pleasure of an equivalent gain, which means people will reliably choose "a smaller amount, guaranteed" over "a bigger amount, at risk."² In 1820, facing the total unpredictability of disaster and disease, John had no option but high-friction, high-emotional-cost mutual aid from his neighbors to buy himself any certainty at all. Modern commerce instead sells Noah and Felix a far more precise certainty, one that requires reading no one's face and asking no one for help. Nobody forced us into loneliness. We walked into it ourselves, one comfortable choice at a time.

Technology: a second species with a will of its own.

Technology started out as an extension of the human body. Kevin Kelly, in *What Technology Wants* (2010), gave a name to the whole system once it grows large enough to start behaving on its own logic — "the technium" — something with its own tendencies, almost its own will, reinforcing certain paths simply by existing.³ The economist W. Brian Arthur, writing in 1989,

¹ Zipf, George Kingsley (1949). *Human Behavior and the Principle of Least Effort*.

² Kahneman, Daniel & Tversky, Amos (1979). "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47(2).

³ Kelly, Kevin (2010). *What Technology Wants*.

described the actual mechanism behind that reinforcement: path dependence and lock-in. Once a technology gains an early lead, for whatever accidental reason, the more people adopt it, the harder it becomes to dislodge — even once something better comes along.¹

To be fair, "technology has to develop down one predetermined path" isn't something historians of technology agree on. Merritt Roe Smith and Leo Marx laid out the actual fault line in their 1994 collection *Does Technology Drive History?*:² one camp holds that technology's own internal logic drives history forward on its own; the other — the social-construction view, associated with Wiebe Bijker and Trevor Pinch — argues that what a technology becomes is shaped by specific social choices, interest groups, and plain historical accident, with no single predetermined outcome at all.³ The debate has no resolution, but it points to something worth sitting with: if technology's path really isn't fixed, then history could have branched into any number of shapes — which is exactly what Part Four takes up.

Technology has another habit worth noticing: it keeps using a bigger piece of itself to patch the damage the last piece caused. The historian Edward Tenner called this the "revenge effect" in his 1996 book: industrial smoke fouled the groundwater, so we built water treatment; color television pulled families' eyes off each other, so we got social media; the anxiety social media caused then created a market for digital detox and mental-health apps.⁴

Once that wheel is turning, opting out gets expensive fast. During the pandemic, China's health-code system tied travel, medical care, and even entering your own apartment building to a smartphone, and plenty of older people who couldn't use one found themselves genuinely stuck, sparking real public debate — probably the most vivid recent demonstration of the idea that leaving the system means you might not survive it.

Capital and efficiency: manufacturing the perfect consumer.

Why did 1920s industrialists and 2020s tech giants, without ever coordinating, end up doing the exact same thing — breaking apart people's physical communities? Because, on capital's own ledger, a fully atomized person is the perfect unit of consumption.

The economic historian Karl Polanyi argued that pre-modern economies were "embedded" in kinship, religion, and mutual aid, and that the modern market is precisely the project of prying

¹ Arthur, W. Brian (1989). "Competing Technologies, Increasing Returns, and Lock-In by Historical Events," *The Economic Journal*, 99(394).

² Smith, Merritt Roe & Marx, Leo, eds. (1994). *Does Technology Drive History? The Dilemma of Technological Determinism*.

³ Bijker, Wiebe & Pinch, Trevor (1984). "The Social Construction of Facts and Artifacts," *Social Studies of Science*.

⁴ Tenner, Edward (1996). *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*.

economic life loose from all of that and letting it run on its own.¹ The 1820 village — sharing tools, taking turns watching each other's kids, the whole town turning out for a wedding or a funeral — looked, on capital's books, close to worthless.

Arlie Hochschild's *The Outsourced Self* (2012) traces how that same unbundling has kept going: dating coaches, wedding planners, parenting consultants, end-of-life companions — a lot of what family and community used to do for free is now something you buy by the hour.² It's an odd mirror image of something Thorstein Veblen noticed back in 1899: once production gets efficient enough that nobody has to labor, "leisure" and "handmade" flip around and become a status symbol in their own right³ — something Chapter Three of this Part comes back to.

Alongside all this unbundling, our culture has learned to sell loneliness as independence, and the severing of old bonds as a triumph of personal freedom. That's not really a conspiracy so much as it is exactly what Hochschild describes: once a whole society's infrastructure — delivery apps, care services, dating apps — has already been built around living alone, living alone really is the path of least resistance compared to rebuilding an actual support network from scratch. And once that's true, a market worth trillions — therapy, pet ownership, gaming — springs up to meet all the solitary people it produced. We hum along to capital's custom-built anthem of freedom, and end up, quite happily, turning ourselves into a scattering of islands.

Social bonds: from organic community to mechanical contract.

In Part Two we mentioned Tönnies's split between *Gemeinschaft* and *Gesellschaft*. Émile Durkheim took the idea a step further: he didn't think division of labor was inherently bad — done right, caught by shared moral norms and real social integration, it could produce a new kind of "organic solidarity," built on mutual need rather than blood.⁴ But he also showed, using real mortality data, that when social integration can't keep pace with how fast division of labor dissolves old bonds, people fall into what he called *anomie* — a kind of normless drift that, in his numbers, tracked reliably with rising suicide rates.

In 1820, John could probably farm, fell timber, and mend clothes; his relationship to the world was total. By 2020, Noah can write one particular kind of code in one particular piece of software and can barely start a fire. Durkheim's real point is that the problem was never division of labor itself — it's whether it dissolves old bonds faster than new forms of integration can grow to replace them. And given how relentlessly chip speeds have compounded under

¹ Polanyi, Karl (1944). *The Great Transformation*.

² Hochschild, Arlie Russell (2012). *The Outsourced Self: Intimate Life in Market Times*.

³ Veblen, Thorstein (1899). *The Theory of the Leisure Class*.

⁴ Durkheim, Émile (1893). *De la division du travail social*; (1897). *Le Suicide*.

Moore's Law, it's hard to escape the conclusion that technology's pace will always eventually outrun our own capacity to adapt. Durkheim's warning, at this point, is either an ant trying to stop a wheel, or wishful thinking.

The more independent a person looks on the surface, the more absolute, in practice, their dependence on the system underneath tends to be. John, in 1820, could have walked off into the wilderness and farmed his own food with his own two hands. Noah, cut off from power, the network, and the delivery system, would struggle to hold together anything like a normal life for very long. We have been, in every practical sense, stripped of the option to live apart from the system at all.

Chapter 2. The Evaporation of Everyday Scenes

How exactly does this braid of human nature, technology, capital, and social structure boil away the poetry and weight of daily life? Three ordinary scenes make the case better than any theory could.

Scene A: reaching someone far away.

The whole point of getting in touch with someone you love is to say one plain thing: *I miss you*.

Era	The Cost of Reaching Someone
1820 John	Grinding ink by lamplight, weighing every word, sealing it with wax — the letter then spends weeks or months on a coach and a ship
1980 Tom)	A long-distance call means standing at a pay phone hoarding coins, or waiting up for the cheap late-night rate
2020 Noah	A suggested emoji, one tap, arrives instantly

How Long-Distance Contact Lost Its Weight

The neuroscientists Kent Berridge and Terry Robinson made an influential distinction in 1998 between *wanting* and *liking*: the dopamine that drives the brain is tied mostly to anticipation and pursuit, not to the pleasure of the reward actually arriving.¹ Under that framework, part of what made John's letter, or Tom's phone call, feel so valuable was probably the waiting itself, which kept that anticipation system switched on the whole time. Compress the wait down below anything a person can consciously register, and all that's left, once it lands, is a single flicker of confirmation. Forget weeks of longing — there's no longer even a gap to long across.

Scene B: listening to music.

The point of finding a song is to let it settle something restless in you.

In 1980, getting a favorite song onto tape might mean camping by the radio with a finger hovering over Record, not daring to move, or saving a month's allowance and taking a few train

¹ Berridge, Kent C. & Robinson, Terry E. (1998). "What Is the Role of Dopamine in Reward: Hedonic Impact, Reward Learning, or Incentive Salience?" *Brain Research Reviews*, 28(3).

transfers to spend a whole afternoon at the record store. Robert Cialdini's classic account of scarcity in *Influence* (1984) explains a lot of what happened next: the harder something is to get, the more we overvalue it once we have it.¹ That's probably why the cassette Tom bought with real money and real time became the untouchable relic of his own adolescence.

By Noah's time, he's handed his ears over to a recommendation algorithm with an effectively bottomless library, and he rarely makes it thirty seconds into a song before skipping to the next one if the intro doesn't grab him. Once the cost of getting something drops to zero, so, almost immediately, does its worldly value. The song stops being a relic and becomes background noise for the gap between meetings.

Scene C: staying alive, and having children.

The single oldest purpose any of us has is to get enough energy to survive and to pass life along.

In 1820, a full meal for John means living through an entire cycle of spring planting, summer weeding, fall harvest, and winter storage. In a 2012 study, the behavioral economists Michael Norton, Daniel Mochon, and Dan Ariely had people assemble IKEA furniture, fold origami, and build with Legos, and found, consistently, that people rate things they made themselves more highly, even when the results are objectively mediocre — the "IKEA effect."² The satisfaction John feels reaping food after real labor is, in a sense, the oldest version of that same effect: the process itself is part of what makes the outcome matter.

In a fictional 2080, Felix's nutrition comes straight from a synthesizer; even chewing has been judged inefficient and cut out entirely. If the IKEA effect is real, then once "staying alive" no longer involves any hands-on process at all, the satisfaction of it is very likely to shrink along with it — which is precisely the psychological hook this book uses to probe the emptiness waiting at the far end of post-scarcity.

¹ Cialdini, Robert B. (1984). *Influence: The Psychology of Persuasion*.

² Norton, Michael I., Mochon, Daniel & Ariely, Dan (2012). "The IKEA Effect: When Labor Leads to Love," *Journal of Consumer Psychology*, 22(3).

Chapter 3. Absurdity in New Business

Once you notice this pattern — ends ruthlessly erasing means — a whole catalogue of modern absurdities snaps into focus.

The absurd business of buying the lost process back.

Technology, chasing our preference for less effort, has efficiently eliminated most of the genuine friction in daily life. Camus, in *The Myth of Sisyphus* (1942), gives us the famous image of Sisyphus pushing his boulder up a mountain forever, only for it to roll back down under its own weight — and argues that it's precisely in that endless struggle that a person touches the realest texture of being alive.¹ Camus wasn't writing about consumer economics, but the metaphor still lands: if a helicopter simply flew the boulder to the summit, Sisyphus would lose the part of his life that was actually his.

Veblen's insight resurfaces here too: once efficiency gets high enough that nobody has to labor, handmade work and the labor process itself turn back into something you can buy as a marker of status. In 1986, the Italian activist Carlo Petrini, protesting a McDonald's opening near the Spanish Steps in Rome, founded the Slow Food movement, which has since grown into a worldwide network built around paying attention to where food comes from and how it's cooked. The gym treadmill, the pour-over ritual at a coffee shop, the flour-dusted Saturday baking class — these are all, at bottom, the same transaction: paying money to buy back a process technology already deleted, and calling it entertainment.

The dopamine bankruptcy of instant gratification.

Once every goal can be met in a single second, the brain's reward system runs straight into tolerance.

In 1980, Tom waits days by the radio and an hour at a bar before he finally gets his tape and sees his best friend — and what his brain releases afterward is slow-building, durable, genuinely earned. In 2020, Noah is flat on the couch scrolling video, getting a new jolt every three seconds and a plot twist every two minutes, his brain fed a steady drip of cheap dopamine instead.

This is the state the Stanford psychiatrist Anna Lembke describes in *Dopamine Nation* (2021): sustained, high-frequency stimulation slowly raises the brain's pleasure-pain set point, so it

¹ Camus, Albert (1942). *Le Mythe de Sisyphe*.

takes more, and more often, to feel the same amount of satisfaction.¹ What Lembke sees in the clinic isn't limited to drugs and alcohol — it shows up just as clearly in heavy users of short-form video and social media.

It's the same underlying mechanism Berridge and Robinson described, just wearing two different outfits: in 1980, Tom's days of waiting were a long stretch of pure *wanting* that finally cashed out into one high-quality *liking*; in 2020, the gap between wanting and getting has all but disappeared, and the system's own sensitivity quietly erodes as a result.

The technology writer Nicholas Carr raised a related worry in *The Shallows* (2010): a habit of reading in small, rapid bursts may actually weaken the neural circuitry that sustained focus and deep reading require.² This runs in a similar direction to Haidt's argument in *The Anxious Generation*, and faces similar pushback (see Part Two, Chapter Three) — better treated as an open question worth tracking than as settled fact. What does seem certain is this: a real idea and a real relationship both require friction, and room for misunderstanding, over a long stretch of time — and that hasn't gotten any easier just because technology streamlined everything else around it.

¹ Lembke, Anna (2021). *Dopamine Nation: Finding Balance in the Age of Indulgence*.

² Carr, Nicholas (2010). *The Shallows: What the Internet Is Doing to Our Brains*.

Coda. No Way Back

Hold up a mirror across the whole span of this history and something almost theatrical happens.

John, wiping sweat off his brow in a field in 1820, dreams desperately of a life with no labor in it at all — just the result — and calls that dream "paradise." That dream turns out to be Noah and Felix's perfectly ordinary Tuesday.

Noah, eating noodles that arrived in three minutes flat, feels a genuine pang of envy for the 1820 he's only ever read about in books — romanticizing all that dirt and waiting and slow seasonal time as "poetry, and somewhere far away."

Neither one of them can ever actually get there. And that's exactly where history cuts deepest:

Every era's small, sensible decisions — made only in the name of an easier, more dignified life — become, without exception, fuel for the same engine, quietly pushing the next era toward something more efficient, and just as quietly, something emptier.

PART 4: the tree of multi-universes

By the end of the last Part, you may be sitting with a fairly heavy sense of helplessness. John's sweat in the mud, Noah's melatonin swallowed in front of a screen — it can look like a single one-way track, laid down by desire and efficiency, running straight toward a place called nothingness.

We would like to sit with that feeling for a moment rather than rush to tell you it isn't so bad. It might not be wrong. It just might not be the only way to look at it either.

What if the world isn't a wire pulled taut from the past into the future, but a tree, quietly putting out a new branch at every single moment of choice? Imagine that every time a person hesitates at a fork in the road, reality itself branches — and that the paths we never took haven't vanished so much as become permanently out of reach.

This is a way of imagining things, not a proven fact. But the next chapter is where I want to be honest with you about exactly how much real physics this particular piece of imagination can actually borrow from.

Chapter 1. Parallel Worlds

Start with the part nobody disputes. The double-slit experiment is a real, repeatedly verified fact of quantum mechanics: fire electrons or photons one at a time through two slits, and if nothing "watches" which slit each one goes through, they build up, on the screen behind, an interference pattern — the signature of a wave. The moment you set up equipment to check which slit a given particle actually took, the interference pattern disappears, and the particle behaves like an ordinary little object that only ever goes one way. Physicists have run this experiment for decades. Nobody argues about the result.

What people argue about is what it means. In 1957, a young physicist named Hugh Everett III proposed, in his doctoral thesis, that the wave function never actually collapses at all — that every possibility happens, simultaneously, in endlessly branching worlds that can no longer communicate with each other. That's the origin of what's now called the many-worlds interpretation.¹ It's a beautiful idea, and a famous one, but it remains exactly that: one interpretation among several that are all still competing. The older Copenhagen interpretation, from Bohr and Heisenberg, holds that the wave function was only ever a description of probability, so talk of "collapse" or "splitting" doesn't really apply. David Bohm's 1952 pilot-wave theory holds instead that a particle has a definite position the whole time, guided by some pilot wave we can't directly see.² All of these interpretations make identical experimental predictions, and no experiment has ever managed to tell them apart — which means not even physicists can point to hard evidence and say, with confidence, that many-worlds is the right one.

There's an odd coincidence of timing worth mentioning. The Argentine writer Jorge Luis Borges published "The Garden of Forking Paths" in 1941, whose famous closing idea is roughly this: time is forever forking, branching toward countless futures.³ That's sixteen years before Everett proposed many-worlds. One was a novelist sitting in a library; the other, a physicist in a lab — separated by sixteen years and two different languages, and yet they arrive, almost, at the same place. That's probably not physics "confirming" Borges so much as two entirely independent imaginations reaching, by coincidence, into the same patch of dark. The coincidence is striking enough on its own without dressing it up as proof of anything.

¹ Everett, Hugh III (1957). "'Relative State' Formulation of Quantum Mechanics," *Reviews of Modern Physics*, 29(3).

² Bohm, David (1952). "A Suggested Interpretation of the Quantum Theory in Terms of Hidden Variables," *Physical Review*, 85. [↩](#)

³ Borges, Jorge Luis (1941). *El jardín de senderos que se bifurcan* ("The Garden of Forking Paths"), Buenos Aires.

Our own instinct, honestly, leans closer to Borges than to any lab result: we suspect many-worlds may be permanently uninterpretable, permanently beyond scientific confirmation — because human perception is itself a sampling process, one particular way of interacting with the world, and every scientific method available to us is, in that sense, still a version of the blind men and the elephant. We'll come back to the limits science places on human understanding in the next Part. For now, set it aside.

So here's the actual invitation, clearly labeled as imagination and not physics: borrow the idea of many worlds, and picture every choice you've ever made as a branch pruned from one enormous tree. What happened to the branches that got cut — the ones we never got to live?

Maybe John, on some hungry evening, chose the tavern over rebellion — and if we're willing to imagine it that way, that one small choice let some branch of the steam age keep growing in its own direction. Maybe Tom hung up the phone at closing time and went straight home instead of somewhere else — and that choice let a slower, analog rhythm linger a little longer in whatever life followed it.

None of this proves another world actually split off. But as a thought experiment, it loosens something real: our habit of treating the one branch we're standing on as the only tree in the whole forest — like an ant born on the tip of a single leaf, unable to see the forest at all, naturally assuming the twig under its feet is the only road there's ever been between heaven and earth.

The canopy is enormous, and all any of us can do is walk slowly along one branch, never back to the fork behind us. That feeling — of no way back — might be the part of this chapter most worth sitting with, rather than the part most worth explaining away.

Chapter 2. The Futures We Missed

If technology's path really isn't fixed in advance — and, as the last Part noted, a real "social construction" camp within the history of technology thinks it isn't — then history must hold actual turning points: not imagined ones, but real moments, with real people in the room, where money, politics, or one person's stubbornness bent things onto the road we know instead of some other one.

What follows are four true stories.

Divergence	What We Lost	The World That Never Happened
1842	Babbage's Difference Engine loses its funding	A world computed in brass and clockwork
1901–1917	Tesla's Wardenclyffe Tower is torn down	Cities lit by free wireless power, and auroras overhead
1975–1977	O'Neill's space colonies get voted down	An epic of space settlement instead of the microchip
1960–1995	Nelson's Xanadu loses to Web; NSFNET goes commercial	A slower, paid, creator-first public internet

Roads Not Taken

1842: the brass computer that never got built.

One summer day in 1821, the mathematician Charles Babbage was checking a batch of error-riddled astronomical tables with his friend John Herschel, and, thoroughly fed up, muttered that he wished the calculations could be done by steam. Herschel told him it was entirely possible. That complaint became the starting point of the world's first general-purpose computer.

The British government funded Babbage's Difference Engine starting in 1823, expecting it to take a few years. Instead, arguments between engineers, a ballooning budget, the churn of changing governments, and the crushing blow of Babbage losing his wife and two children at once in 1827 kept the project stalling out for two decades. By 1842, the government formally

pulled the plug, having already spent over seventeen thousand pounds — several million dollars today — without Babbage ever seeing a single finished machine.¹

What happened next is even harder to sit with. Around the time the funding was cut, Babbage had already designed a far more sophisticated machine, the Analytical Engine, and Ada Lovelace — Byron's daughter — wrote a detailed set of notes for it, including what's now recognized as the first computer program ever written, for a machine that would never exist. Writing software for a computer that isn't there is its own peculiar kind of courage. Even with Lovelace's elegant notes attached, the government never released another pound. Babbage died in 1871, and the Analytical Engine never left the drafting table.

The story should have ended there, one more genius failed by his own century. But in 1991, London's Science Museum built a Difference Engine No. 2 from Babbage's original drawings, to mark his two-hundredth birthday, using only the manufacturing precision available in the 1800s. When they turned the crank, it ran perfectly.² The engineers' verdict, afterward, was blunt: Babbage's design had been correct from day one. What killed it was never the technology — it was money, politics, and a handful of clashing egos. A hundred and fifty years later, a dead man finally got his proof.

What if the funding hadn't been pulled in 1842? What if the Analytical Engine had actually been built? Picture Mark, in 1920, as a "clockwork mechanic" running a steam-driven automated lathe programmed with brass gears. Picture Noah, in 2020, staring not at an LCD screen but a "mechanical window" of a million vibrating brass tabs, every message accompanied by the rumble of some enormous gear-tower somewhere — information still carrying real weight, real sound, real friction, the process never quite smoothed away. It's only our own guess, of course. Babbage himself will never know.

1901–1917: the aurora that burned to ash.

In 1900, Nikola Tesla came back to New York from Colorado Springs looking for money to build a tower that could send radio signals across the Atlantic. J.P. Morgan agreed to put in \$150,000 — several million dollars today — on the condition it be used strictly for a respectable transatlantic telegraph business. Between 1901 and 1902, the 187-foot Wardenclyffe Tower, designed by the noted architect Stanford White, actually went up on Long Island.³

But Tesla had a bigger dream underneath the deal: not telegrams, but electricity itself moving freely through the air, worldwide, for free — no wires, no meters. In 1901, pitching Morgan on

¹ Swade, Doron (1991). *Charles Babbage and his Calculating Engines*.

² Swade, Doron (2001). *The Cogwheel Brain: Charles Babbage and the Quest to Build the First Computer*.

³ King, Gilbert (2013). "The Rise and Fall of Nikola Tesla and His Tower," *Smithsonian Magazine*.

an expansion, he finally admitted as much. Morgan pulled out. A system that made power free wasn't exactly a compelling investment for a banker who'd already sunk a fortune into wired electrical infrastructure. At almost the same moment, Marconi achieved transatlantic wireless telegraphy by a route that was cheaper and simpler by far — and overnight, the entire commercial case Tesla had used to court his investor evaporated.

The next decade or so was a slow bleed-out: patents expired in 1905 and the royalty income went with them; the site sat idle; in 1917, during the war, people started suspecting the abandoned tower of being a German spy post, and the government had it dynamited, the wreckage sold for scrap at \$1,750. Tesla died alone in a New York hotel room in 1943, leaving behind almost nothing.¹

What if Morgan had extended a little more trust in 1901? Picture Tom's Walkman in 1980 with a ring of brass antenna instead of a battery compartment, running all evening on ambient Tesla-field power, the city's night sky faintly lit by the aurora thrown off by high-voltage arcs somewhere. Picture Noah, in 2020, needing to wear a coat woven from metal thread just to leave the house, a personal Faraday cage, because free power for everyone would have left the whole planet soaking in an invisible electromagnetic bath. It's a consequence we built entirely out of thin air. In the world that actually happened, Tesla never got to see that day.

1975–1977: the frontier we voted down.

In 1969, the Princeton physicist Gerard O'Neill put a question to a class of incoming freshmen: is a planet's surface really the best place for an expanding civilization to live? He and his students worked out an answer together — no — and the idea grew into a serious engineering proposal. Princeton hosted two Space Manned Colonization Conferences in 1974 and 1975, co-sponsored directly by NASA; NASA also funded two ten-week summer studies at its Ames Research Center in 1975 and 1976, at up to half a million dollars a year, seriously working out the feasibility of large orbital settlements at the Moon and the Lagrange points. In 1976, O'Neill turned it all into a book, *The High Frontier*, proposing rotating cylindrical colonies built from lunar and asteroid material, big enough to house millions.²

By 1977, the idea had briefly broken into the mainstream — CBS's *60 Minutes* gave it a full segment. But that same year, Senator William Proxmire, who controlled NASA's budget and had built a reputation mocking wasteful government spending, made it his target. As the Cold War wound down, America's money and attention flowed instead toward microelectronics and computing — which would go on to prove the far better bet — rather than a decades-long,

¹ Cheney, Margaret (1981). *Tesla: Man Out of Time*.

² O'Neill, Gerard K. (1976). *The High Frontier: Human Colonies in Space*.

hugely expensive push into space. O'Neill died of leukemia in 1992, and his rotating cylinders never left the illustrations and journal papers they were born in.

What if those summer studies had actually locked in decades of serious funding? Picture Tom, in 1980, not in a Chicago cubicle but in a heavy spacesuit, mining ore in the Copernicus crater. Picture Noah, in 2020, living in a hundred-thousand-person domed city on Mars — its control room still running on vacuum tubes filling several football fields, because every dollar of technological investment went toward spacecraft and fusion reactors instead of microchips. This, too, is built on top of one real, and genuinely abandoned, thread of history.

1960–1995: two networks that never met.

In 1960, a young man named Ted Nelson started imagining a kind of network he called "hypertext" — a word he coined himself. In his version, every piece of writing traced back to its author, every reading and every citation sent a small automatic payment to whoever wrote it, and every link ran both ways, so nothing could ever go dead, because an edit would sync everywhere at once.¹ He called the project Xanadu.

Nelson's vision was considerably more ambitious, and more idealistic, than the internet we actually got. Between 1989 and 1991, Tim Berners-Lee, working at CERN, designed something far simpler: the World Wide Web — one-way links, no author permission required, no built-in payment system at all — and it was easy enough to build that it overtook Nelson's still-unfinished ideal within a few years. The two men reportedly met once, and Nelson, by most accounts, never quite got over Berners-Lee's decision to skip bidirectional links and micropayments. A 1995 *Wired* piece called Xanadu the longest-running case of vaporware in the entire computer industry — a blueprint that never came off the page.² In almost the same year, the U.S. National Science Foundation ended its federal funding of the NSFNET backbone; from April 30, 1995 onward, the internet went entirely from a research network that banned commercial traffic to something run fully by commercial providers.³ These two things, arriving back to back, can be read as two faces of the same choice: we didn't take the more complicated road that paid creators directly, and we didn't keep the internet funded as a public utility either. We handed it to the market instead.

What if Xanadu had won the race? What if NSFNET's move to the private sector had come bundled with stronger public-interest rules? Picture a 2020 where every article Noah reads

¹ Nelson, Theodor H. — Project "Xanadu" began in the 1960s.

² Wolf, Gary (June 1995). Report in *Wired* magazine.

³ Records of the U.S. National Science Foundation (NSF) on the termination of federal funding for the NSFNET backbone, April 30, 1995.

sends its author a small payment, where platforms don't need to sell his attention to advertisers and so don't have nearly as strong a reason to engineer an endless, unstoppable scroll. He finishes his research, sends his client emails, shuts the laptop without much of a fight, and goes and talks to a neighbor, or turns up for a book club that's loud and a little chaotic but genuinely real. Whether that world's mental health would actually be any better isn't something we have data for — it's a question we'll never get to run, not a report we can cite — and it's exactly because we can't go back and check that it stings a little, even now.

A few shorter echoes.

Worth a mention too: a real, parallel thread from the 1970s. The economist E.F. Schumacher's *Small Is Beautiful* (1973)¹ and Stewart Brand's *Whole Earth Catalog* competed², in that same decade, with Silicon Valley's rising digital wave for public attention and money. Both argued for distributed clean energy and "appropriate technology" instead of centralized digital networks. That thread never became the mainstream one.

The notion that the world might have switched tracks entirely is one humans have been playing with for a long time. In 1872, Samuel Butler's novel *Erewhon* imagined a country whose people applied Darwin's theory to machines: since machines might evolve faster than living things, the reasoning went, every complex machine should be destroyed before it got the chance to overtake us.³ Nearly a century later, Frank Herbert's *Dune* (1965) gave us the Butlerian Jihad: a holy war that overthrew the "machine-logic god" ruling over everyone, and a law — no thinking machine shall be built in the likeness of a human mind — that held for tens of thousands of years across the entire *Dune* universe.⁴ Readers and scholars alike have long read "Butlerian" as Herbert's nod to Samuel Butler: two writers, a century apart, landing on the same worry without ever coordinating — if technology really might swallow something we care about, could we ever call a halt to it collectively?

Interestingly, a line that spent sixty years living only inside a novel has, in the last few years, wandered straight into reality. As generative AI has started showing off capabilities that genuinely unsettle people, phrases like "maybe we need our own Butlerian Jihad" have started turning up, unironically, in tech commentary and news coverage — a piece of dialogue that spent six decades as pure fiction is now something anyone can casually reach for.⁵

¹ Schumacher, E. F. (1973). *Small Is Beautiful: A Study of Economics as if People Mattered*. Blond & Briggs.

² Brand, Stewart, ed. *The Whole Earth Catalog*. Menlo Park, CA: Portola Institute, 1968–1972.

³ Butler, Samuel (1872). *Erewhon; or, Over the Range*. London: Trübner & Co.

⁴ Herbert, Frank (1965). *Dune*. Philadelphia: Chilton Books.

⁵ On the term "Butlerian jihad" entering tech commentary and popular discourse in the 2020s, see the public record of the term's etymology.

There's a true story even closer to us, close enough that it barely needs an "if" at all. In March 2023, the nonprofit Future of Life Institute published an open letter calling on AI labs worldwide to pause training anything more powerful than GPT-4 for at least six months. Elon Musk was one of more than thirty thousand signatories, and had long been one of the organization's major funders.¹ Six months later, the institute's own founder, the MIT physicist Max Tegmark, admitted the pause simply never happened — every lab kept working on schedule, and by 2025, still more capable successors to GPT-4 had duly arrived.² More strikingly, not long after signing that same letter, Musk went and founded his own AI company, xAI — his explanation later was that since nobody else had actually stopped, he had no choice but to stay in the game.³ Babbage waited a hundred and fifty years to be proven right. This time, we didn't even need a hundred and fifty days: the exact same drama, replayed in broad daylight, within a couple of years.

It's genuinely true: scattered across modern history are hidden forks in the road, at nearly every turn, where humanity needed only to drift a few degrees off course — technologically, politically — for the whole shape of civilization to slide into a completely different universe.

A multiverse isn't idle fantasy. The choices consciousness makes are the very process by which humanity samples the cosmos, and it's our collective consciousness that presides over whichever civilization actually gets to show up. Somewhere inside an overflowing, endless score of music, our own reality may be nothing more than the single movement that happened to collapse into being.

¹ Future of Life Institute (March 22, 2023). "Pause Giant AI Experiments: An Open Letter."

² Aguirre, Anthony (March 22, 2024). "The Pause Letter: One Year Later," Future of Life Institute.

³ On Musk's founding of xAI and his remarks on staying at the table despite the pause not occurring, see the *MIT Technology Review* coverage cited above, together with other public reporting.

Coda. Indra's Net

If those true stories left you with a pang of something like grief for Babbage or Tesla, that feeling is exactly what this Part is trying to preserve — not something to be reasoned away.

The Huayan school of Mahayana Buddhism describes a vast image called Indra's Net: a net said to hang above the palace of the king of the gods, strung with countless jewels, each one reflecting the light of every other jewel, layer within infinite layer — one within all, and all within one.¹ We almost certainly can't visit the 1920 where the Difference Engine hums along, or the world where everyone has free electricity, and we certainly can't put a hand on Babbage's shoulder and tell him he was right. But if Indra's Net is worth borrowing one more time, maybe this much can be said: the branches history quietly pruned away might still be shining somewhere, even if, in this one life, we can only ever reach the branch under our own feet.

None of this erases what John, Mark, Tom, Noah, and Felix actually lived through, and it doesn't mean the path technology took never mattered — quite the opposite. It's exactly because the path could have gone differently that Babbage's story, and Tesla's, cut as deep as they do. The tree of life keeps putting out new shoots in total silence, and maybe all we can really do is remember: today's branch was never the only answer. It's just the one we happened to walk out, together.

The universe blooms in a thousand shapes at once; this world of ours is only the one movement that happened to collapse into being, out of a swarm of consciousnesses each drawn to its own kind.

In the next Part, we go back to John, Mark, Tom, Noah, and Felix themselves — to listen, as each one stands on his own small leaf, to the pride and the peace he sings into the song that belongs to him alone.

¹ Huayan school (founded 671 CE), *Avataṃsaka Sūtra* (*Huayan Jing*).

PART 5: being always thus

Standing under the high vault of a quantum cosmos, looking down at the tree of life shaking in the wind, we might genuinely feel some relief. But we're not standing under that vault. We're modern people who can only ever live on our own narrow branch, and the moment we look back at our own glowing screen, at the anxiety that shows up right on schedule every night, a harder question surfaces:

If every era gives up something that once looked sacred, if we really are heading, irreversibly, toward a future of atomization and virtual life — why don't we wake up most mornings feeling like we're living in hell? Why do we tend, instead, to dust ourselves off and tell life, quite happily: good to be awake.

The last Part built a bridge out of "many worlds." Here I want to be more direct: that bridge is just a bridge, not a destination. We don't think whether parallel universes exist is a question science will eventually answer. If anything, we suspect it may lie entirely outside what science is built to settle — not because science isn't good enough, but because science, as a method, was shaped by human perception from the start, and human perception is, at bottom, a form of sampling. We can only stand at this one point in time, this one local patch of space, and look, measure, repeat, and check. It's the old parable again: several blind men feel an elephant, and the one holding its leg says it's like a pillar, the one holding its ear says it's like a fan — each of them has genuinely touched something real, and none of them has touched the whole animal. The parable shows up in the Pali canon, in the *Udana*, where the Buddha uses it to make a point: mistaking the one small patch you've touched for the whole truth is the actual root of every argument.¹

Science runs on the same three legs. It needs *sequence & order* — one step of observation and reasoning after another. It needs *locality & separability* — measuring only what's directly in front of it, then breaking that down further still. And it needs *reoccurrence & repeatability* — somebody else has to be able to do it again for it to count. The trouble is that the most interesting parts of the universe may be exactly the things these three legs can't hold up: whatever happens only once, or somewhere else, or outside this present moment entirely. Exactly how far those three constraints bind not just science but human understanding as a whole is a question worth its own space later. For now, the point is simpler: we have no interest in dressing up "are there other worlds" as something science has proven or will prove. We're happy to just call it unknowable. In 1869, when the biologist Thomas Huxley coined the word

¹ *Tittha Sutta* ("The Sectarrians"), *Udana* 6.4, *Khuddaka Nikaya*, Pali Canon.

"agnostic," he meant something close to this — that some questions aren't ones we simply haven't answered yet; their very nature may mean nobody gets to claim they know the answer at all.¹

Interestingly, this same situation — a question that, in principle, its own system can't settle from the inside — doesn't only show up at the edge of physics and biology. Mathematics, the discipline we trust most for precision, has its own version, worked out almost the same year, and far more rigorously. In 1931, the logician Kurt Gödel proved two results now known as the incompleteness theorems: any formal system complex enough to express basic arithmetic, and consistent, will always contain true statements it cannot prove or disprove from within itself — and such a system can't even prove its own consistency.² This is a precise result about formal systems, not a skeleton key for physics or for the parallel-universe question, and stretching it into some sweeping claim that "humans can never understand the universe" is a mistake more than one popular-science writer has made; we'd rather not repeat it here. The physicist Roger Penrose pushed further still, arguing Gödel's theorem proves human consciousness can't be purely algorithmic³ — an argument that remains genuinely contested in logic, with critics like Solomon Feferman arguing Penrose is stretching the theorem well past what it can actually support.⁴ Cautiously put, Gödel's proof at least gives us a solid precedent: even inside the most rigorously built, most self-contained system of knowledge we've ever produced, there are questions the system has no way of settling from within. Douglas Hofstadter, in his 1979 book *Gödel, Escher, Bach*, called this — a system that can't fully explain itself — a "strange loop."⁵ In mathematics, that loop belongs to Gödel; at the edge of biology and philosophy, it belongs to Huxley; and in this book, it probably belongs to the question of parallel worlds.

Fortunately, answering why we so rarely feel like we're living in hell doesn't require settling that much bigger question first. Ecology already has a tested concept we can simply borrow.

In 1995, the fisheries scientist Daniel Pauly published a one-page note proposing "shifting baseline syndrome": every generation of fisheries scientists takes the fish stocks they saw when they entered the field as the normal baseline. By the time that generation retires and hands off to the next, stocks have already fallen from years of overfishing — and the next generation still takes that already-diminished number as its own new normal. Generation after generation, the bar quietly drops, and everyone sincerely believes what they're looking at is simply how things

¹ On Huxley coining "agnostic" at the Metaphysical Society in 1869, see the relevant intellectual-history accounts.

² Gödel, Kurt (1931). "Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I," *Monatshefte für Mathematik und Physik*, 38.

³ Penrose, Roger (1989). *The Emperor's New Mind*; (1994). *Shadows of the Mind*.

⁴ Feferman, Solomon (1995). "Penrose's Gödelian Argument," *Psyche*, 2.

⁵ Hofstadter, Douglas (1979). *Gödel, Escher, Bach: An Eternal Golden Braid*.

have always been.¹ Pauly wrote it as a quick favor to an editor in a bind, with no data and no equations behind it, and it went on to become one of his most-cited papers, borrowed again and again by environmental writers as a general-purpose metaphor for how people collectively, gradually, get used to a world that's quietly gotten worse.

This is the same truth sociology and psychology point to from a different angle: the brain has a near-magical talent — neuroplasticity — for treating "normal" not as some fixed line but as whatever happened to surround you the moment you first opened your eyes on the world. Every generation takes its own birthplace as civilization's obvious starting point. Every generation's home, seen through the eyes of the one before it, tends to look like an unimaginable purgatory.

¹ Pauly, Daniel (1995). "Anecdotes and the Shifting Baseline Syndrome of Fisheries," *Trends in Ecology & Evolution*, 10(10), 430.

Chapter 1. The Conceit of Pity Across Time

One of the things modern people do best is stand inside their own moment and feel sorry for everyone who came before, or dread, on behalf of everyone still to come, some looming emptiness. But by history's own logic, this is really just a kind of cross-temporal vanity — an emotional investment nobody on the other end ever asked for. Pull each generation's actual, lived experience into one room and set them face to face, and the mismatch turns out to be genuinely funny.

Noah (2020) and Felix (2080)

Noah, pitying Felix: "God, that poor guy in 2080 — he's basically given up having a real body, eating some jelly-textured synthetic paste, doesn't even get to chew anymore... that's not a life, that's a cold electronic matrix with no dignity or soul left in it. It's basically hell."

Felix, on Noah: "Emptiness? Misery? What was 2020 even like. I've got a lifespan measured in centuries, no cancer, no aging, eyesight that never fails... it's the Noahs of the world who had it rough. Gluing themselves to an ergonomic chair for eight hours a day, mortgaging thirty years of their life to a bank for a cramped concrete box they called an apartment — that's real medieval servitude, and he's got the nerve to pity me?"

Tom (1980) and Noah (2020)

Tom, pitying Noah: "Have people in 2020 lost their minds? A group of friends sitting in a bar together, and instead of talking, everyone's staring down at some glowing rectangle in their hand? Hand me a life like that and I wouldn't last a day — that's a digital labor camp."

Noah, on his own life: "This is just convenient, this is just how things are. I can video call a friend anywhere on Earth, laugh together in real time... sure, I've got my own worries about layoffs and getting stuck where I am, but isn't that just what life looks like? My digital life feels rich, and it feels like mine."

People are like water — pour us into whatever container the era hands us, and we take its exact shape, and believe, often with a certain pride, that this is simply how we've always been.

What we take for our own helplessness — the sense of being carried along against our will — is very often laced with a kind of arrogance the present holds toward the past. Nobody has ever forced us forward at gunpoint. We've been nudged along, gently, by nothing more than the fact that we end up loving whatever we get used to, and by our own considerable talent for forgetting. Every time technology hands us something — more efficiency, more convenience, a longer life — we turn around, without fail, and forget the price we paid for it: the real physical

process, the warmth of contact, the old ties of community. Forget the cost, and it stops hurting. Get used to it, and it starts to feel wonderful.

That sense of "well, of course" has its own name in psychology. In 1971, Philip Brickman and Donald Campbell proposed "hedonic adaptation" — sometimes called the hedonic treadmill: no matter how good or bad an event is, a person's sense of well-being tends to settle back to a fairly stable baseline after enough time has passed.¹ In 1978, working with Jane Janoff-Bulman, they ran a study that's become famous: lottery winners and people paralyzed in accidents, once enough time had gone by, reported roughly the same satisfaction with everyday life as ordinary people did.² Later work has added an important correction — Ed Diener and colleagues, in a 2006 review, found that people don't adapt to everything: things like unemployment, disability, or losing a spouse can produce a genuinely long-term drop in satisfaction, and the baseline itself can drift slowly across a lifetime rather than sitting fixed at the same point for everyone.³ The two kinds of event are fairly easy to tell apart, in fact: one is a single shock a person naturally recovers from; in the cases Diener studied, it's the ongoing aftermath — continued discrimination, say — that gets in the way of recovery. Taken together, this is more than enough to explain why John, Mark, Tom, Noah, and Felix, for all the difference in their circumstances, would each settle into roughly the same day-to-day verdict on their own life: not bad. Actually pretty good.

Facing this kind of gravity, Nietzsche offered one of philosophy's most demanding answers: *amor fati*, the love of fate. The phrase first shows up in *The Gay Science* (1882): *I want to learn, more and more, to see as beautiful whatever is necessary in things — and so become one of those who make things beautiful. Amor fati: let that, from now on, be my love.*⁴ Six years later, in *Ecce Homo*, he sharpened it into a single line: *my formula for what is great in a human being is amor fati — that one wants nothing to be different, not looking backward, not forward, not into all eternity.*⁵ For Nietzsche, the highest thing a person could do was never resignation. It was to see fate clearly, in all its indifference, and still open your arms to it — to actually love it.

That sunflower-like knack we have for adapting to almost anything is, in a sense, this same love of fate, running quietly in our biology and our spirit both. However absurd, mechanical, or coldly futuristic a given age turns out to be, we manage, every single time, to put down roots in whatever crack in the concrete we're given, push open a window, clap ourselves on the back, and say: "Hey — look at you, doing just fine!"

¹ Brickman, Philip & Campbell, Donald T. (1971). "Hedonic Relativism and Planning the Good Society," in M. H. Appley (Ed.), *Adaptation-Level Theory*. New York: Academic Press.

² Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). "Lottery Winners and Accident Victims: Is Happiness Relative?" *Journal of Personality and Social Psychology*, 36(8), 917–927.

³ Diener, E., Lucas, R. E., & Scollon, C. N. (2006). "Beyond the Hedonic Treadmill: Revising the Adaptation Theory of Well-Being," *American Psychologist*, 61(4).

⁴ Nietzsche, Friedrich (1882). *Die fröhliche Wissenschaft (The Gay Science)*.

⁵ Nietzsche, Friedrich (1888/1908). *Ecce Homo*, "Why I Am So Clever," §10.

Chapter 2. Five Generations, Five Inner Monologues

As that long baseline keeps quietly resetting itself, century after century, every contradiction of space and time eventually dissolves into the same unshakable pride. What follows is John, Mark, Tom, Noah, and Felix, each standing on his own small leaf, singing — with a completely sincere, slightly condescending confidence — the anthem of his own life. These are five deliberately exaggerated and one-sided monologues. They're not this book's own verdict on anything. They're an invitation to hear what prejudice actually sounds like from inside the head producing it.

John, 1820 — *"We are the real ones, flesh and blood, made and watched over."*

"Those poor, half-alive spirits out there in the future, penned up behind cold steel racks and glowing rectangles — pitiful, bloodless things. Look at me instead. My arms and legs are full of real strength every single morning; I work that great wooden loom with my own two hands and turn coarse cotton into fine cloth — that's the noblest gift God ever handed to a human being. After work, my friends and I pack into a warm little tavern and drink together, and our handshakes have callus and heat in them, and our singing could lift the roof clean off the place. Those poor souls in the future, the second a machine breaks, they'll lie there and starve like a weaned infant with nowhere to turn. We're the ones actually in charge of our own lives here. We're the real human beings."

Mark, 1920 — *"We ended a dark age with steel and speed."*

"John, back in 1820, was basically a serf stuck in some ignorant dark age, drinking foul water every day, writing his will to God over a bad cold. Me — Mark, assembly man at a great Detroit plant — I'm the actual pioneer of modern civilization on this planet. Listen to that motor roar filling up this enormous floor — every single minute, a brand-new black Model T is born right out of my hands. I've got the greatest eight-hour day in the history of labor, and after my shift I walk out with a fat weekly paycheck and sit laughing in a theater lit up bright as noon. As for those poor descendants a few hundred years off — I hear they don't even want real factories anymore, they just poke at some invisible thing called code all day. My generation turned the whole planet's fate with the hardest gears we could forge. That's the one undisputed golden age in human history."

Tom, 1980 — *"We hit the single best, freest crossing point history has to offer."*

"1920's Mark had it rough — nothing but a screw in some capitalist's machine. Me, I get to live in the free year of 1980. My suit's pressed, my cubicle's got real air conditioning, and best of all — the second five o'clock hits, I hang up the office phone and I'm completely cut off from the whole working world. Forty years on, in 2020? Sounds like a digital labor camp — apparently people back then handed their whole location, around the clock, to some monitoring app called the internet, all in the name of convenience, and still fetch for the boss in some chat group after

hours. My generation gets to enjoy every comfort technology has to offer while keeping our dignity, and our freedom, fully intact."

Noah, 2020 — *"We've got something close to omniscience; everyone before us looks like a caveman."*

"1980's Tom actually thought he was free? Had to line up at a video store to rent a movie, could get lost carrying an actual paper map. That's not freedom, that's just inefficiency and isolation. Look at me now — the whole planet's knowledge and entertainment sits right at my fingertips, and whatever I want to eat, it's at my door in thirty minutes. As for the people of 2080... they can't even be bothered to keep a real body anymore, choking down some jelly-textured feed. No sizzle of a real meal, none of the actual struggle or joy of getting somewhere in the physical world — that carefully engineered 'perfect sensation' of theirs is nothing but a refined kind of electronic heroin. We're the peak of civilization, right here."

Felix, 2080 — *"We've moved past pain and the body itself; everyone before us was still basically an animal."*

"Looking back at that ancient guy Noah, from 2020, all I feel is a deep sense of the absurd, and honestly, pity. He actually called that life 'being in control'? He enslaved himself for thirty years just to afford a concrete box, his body falling apart from cancer, aging, failing eyesight. Our history books call 2020 the Great Spiritual Collapse. And here in 2080, we've been fully liberated from physical suffering, from scarcity, from the whole idea of labor as servitude. My life stretches past what used to be a lifetime's limit; my mind can cross light-years in a single second. We don't need hunger or friction to prove to ourselves we're alive anymore. We're the ones who actually made it out of the cradle — the interstellar humanity that finished the job of evolving."

Coda. The Dissolution of Coordinates

When all five of these voices sound off at once across the long river of time, any attempt to judge one from above the others simply loses its footing.

By now you've probably already spotted the thing that makes all this both so fascinating and so hard to score: nobody actually needs to "adapt" to the future after the fact, because the future's own idea of normal will always get rewritten from the inside. The fish in the pond (John), the fish in the tank (Mark, Tom), even the fish in the petri dish (Noah, Felix) — every one of them sincerely believes the water they're swimming in is the open sea.

This is the same insight as the blind men and the elephant from earlier in this Part, just turned ninety degrees — from space onto time. Where the blind men each touch a different part of the same elephant at the same moment, John, Mark, Tom, Noah, and Felix each touch a different part of the same fate, at different moments. Jainism sums up something close to this in a single phrase — *syad-asti, syan-nasti*, "perhaps so, perhaps not so" — a reminder not to mistake the one patch you've actually touched for the whole truth.¹⁶⁷ History was never later generations looking down on earlier ones from some higher ground. And humanity isn't marching further and further down one single wrong road, either.

Across this centuries-long process, we keep losing things even as we keep picking new things up — and yet whoever happens to be standing in the present moment always, somehow, learns to feel wonderful about it, and proud of it too. We've used a kind of small-scale cleverness to help push along a much larger fate, and we've used an equally small-scale gift for healing to quietly dissolve the tragedy that fate carries with it.

This evolution against our own will, paired with this happiness we never quite notice we're having, might be the single most extraordinary, and most unknowable, fact in all of human history. As for whether there's really some entire parallel symphony behind it all, one we can never confirm and never rule out — that question we're content to leave sitting exactly where it belongs: in the file marked *don't know*, rather than rushing toward an answer we could never really give anyway.

The tree of life keeps quietly putting out new growth even now, and on every one of its uncountable branches, some civilization or other is singing, at its own peak, in complete sincerity. And our species — this one long river of history, streaking past like a rainbow — will, in the end, dissolve into a forgetting and a self-consistency all its own: living forever, and disappearing without a trace, both at once timelessly.

¹ The Jain doctrine of *Anekantavada* (also *Syadvada*, "non-one-sidedness") is closely related to, and often cited alongside, the parable of the blind men and the elephant.

Finale: echo

Who rang the bell through that first frozen light,
and pressed hands, cracked with callus, into straw for the night?
The shuttle flew on — a tireless swallow chasing thread —
while a letter crossed whole mountains for months before it was read.

One whistle blew, and gears bit into the axle of the age;
the belt rolled on past sunsets, and neon lit the stage.
Amid the roar, one cold screw wound itself ever tight,
while a silent screen held a century's ache behind its light.

A click of the phone, and every worry stowed away;
a cassette spun back the haze of some half-forgotten day.
Vendors' cries rose with the traffic into the falling dark,
till midnight static, right on cue, snuffed out the evening's spark.

Then the world shrank down to one small, blue-lit screen,
needling tired eyes, and minds worn thin and lean.
Behind each order runs a hidden thread of blood and bone —
we're islands wired together, and yet each one alone.

The flesh, at last, lies cradled in some dim and weightless bed;
one spoonful of grown jelly, and forever lies ahead.
The mind dissolves in silence to a vast, merged digital tide,
while the soul, in a garden of air, feels the old earth at its side.

This is a vast tree of life, blooming on into the dark —
no god its gardener, no devil come to leave a mark.
Alive in a bowl, in a pond, and swearing it's the open sea,
just an old, unshaken pride, and one mind waking free:

it rubs its eyes, and pushes the window wide —
"Hey — would you look at that. Beautiful day outside."